ISVEE 14
Mérida, Yucatán, México 2015

Presentation Abstract

Add to Itinerary

Print

Presentation:	203 - Zoonotic risks in backyard poultry and swine productive systems in the central zone of Chile
Location:	Uxmal 2
Pres. Time:	Thursday, Nov 05, 2015, 10:15 AM -10:30 AM
Category:	+A2. Biosafety, biosecurity, infection control
Author(s):	**Francisca Di Pillo**[1], Soledad Ruiz[1], Stephanie Depraz[2], Elizabeth Gomez[1], Patricio Retamal[1], José-Manuel Yáñez[1], Santiago Urcelay[1], Christopher Hamilton-West[1], [1]University of Chile, Santiago, Chile; [2]CIRAD, Guadeloupe, France. Contact: frandipi@gmail.com
Abstract:	Purpose: Backyard productive systems (BPS) are recognized as the most common form of animal production in the world, being considered as an important component of small farmer's livelihoods. However, BPS exhibit severe biosecurity deficiencies, and could play a major role in the maintenance and spread of animal diseases and zoonoses. The aim of this study was to identify the circulation of influenza A virus (IAV) and *Salmonella enterica* in BPS, and to evaluate risk factors for these infections. Methods: Serum samples and cloacal swabs were randomly collected from birds and swine among 113 BPS in central Chile. Results: There was a rate of IAV antibodies of 4.09% (18/440) in poultry, and 1.57% (2/127) in swine, whereas it was of 12.72% (14/110) for poultry and 2.2% (2/89) for swine at BPS level. As for *Salmonella*, a total of 30 birds resulted positive to *Salmonella* spp. Regarding to pigs, 6 were found positive to *Salmonella*. The positivity rates of *Salmonella* in poultry and pigs were 5.71% and 3.85%, respectively. The positivity rate of *Salmonella* at BPS level was 22.12% (25/113) Risk factors were evaluated through a logistic regression model. Variables that showed statistical significance ($p<0.05$) for IAV were sampling in counties bordering coast or lakes (OR = 9.66) and the direct contact between poultry and pigs (OR = 8.18). For *Salmonella*, 4 variables showed statistical significance (p value<0.05); sampling in counties bordering coast or lakes (OR = 11.29), the interaction between total number of poultry and sampling during spring/summer (OR = 1.05), the presence of poultry/swine in neighbors (OR = 6.08) and swine with permanent stabling (OR = 0.09). Conclusions: The results of this study demonstrate that IAV and *Salmonella* spp. have been circulating in poultry and swine populations at BPS in central Chile. Relevance: The circulation of these diseases in BPS poultry and swine constitute biological risks that threaten both public and animal health and the sustainability of these production systems.